

Listing of Claims:

1. (Previously presented) A data network management system for identifying unauthorized access to a data network service, provided at a service node in a data network, by a user node in said data network, said service node having an agent and having means for maintaining a user access list, said user access list having at least one data network address corresponding to at least one user node in said data network, said system comprising:

a data communication means for periodically polling said agent at said service node and for retrieving a user access list from said agent;

a database for maintaining an authorized access list for said service node;
and

a data processing means for comparing said user access list to said authorized access list and for updating said authorized access list based on the user access list retrieved from said agent.

2. (Previously presented) The data network management system as defined in claim 1, wherein said agent is a Simple Network Management Protocol agent.

3. (Previously presented) The data network management system as defined in claim 1, wherein said data communication means is a Simple Network Management Protocol communication means.

4. (Previously presented) The data network management system as defined in claim 1, further including means for installing said agent at said service node, said agent having means to communicate with said data communication means.

5. (Previously presented) A method for identifying unauthorized access to a data network service, provided at a service node in a data network, by a user node in said data network, said service node having an agent and having means for maintaining a user access list, said user access list having at least one data

network address corresponding to at least one user node in said data network, said method comprising:

- a) periodically polling an agent and retrieving said user access list, for a given period of time, from said service node in said data network;
 - b) comparing said user access list to an authorized access list;
 - c) determining if an access to said service node was unauthorized based on comparing said user access list to the authorized access list; and
 - d) if said access was not authorized, initiating a notification process;
- wherein said user access list identifies a plurality of accesses to said service node.

6. (Previously presented) The method as defined in claim 5, further including updating said authorized access list based on said user access list retrieved from said service node.

7. (Previously presented) The method as defined in claim 5, further including installing said agent at said user node, prior to periodically polling and retrieving said user access list.

8. (Previously presented) The method as defined in claim 5, further including selecting said service node for identification based on a predetermined criteria, prior to retrieving said user access list.

9. (Previously presented) The method as defined in claim 5, wherein said notification process comprises notifying a Network Operations Console.

10. (Previously presented) The method as defined in claim 5, wherein a) through c) are repeated, and wherein said user node is selected from one of a plurality of user nodes in said data network.

11. (Previously presented) The method as defined in claim 5, wherein a) through d) are repeated, and wherein said user node is selected from one of a plurality of user nodes in said data network.

12. (Previously presented) The method as defined in claim 5, wherein said agent is a Simple Network Management Protocol agent.

13. (Previously presented) A computer-readable medium for identifying unauthorized access to a data network service, provided at a service node in a data network, by a user node in said data network, said service node having an agent and having means for maintaining a user access list, said user access list having at least one data network address corresponding to at least one user node in said data network, and said medium having stored thereon, computer-readable and computer-executable instructions which, when executed by a processor, cause said processor to perform steps comprising:

- a) periodically polling an agent and retrieving said user access list, for a given period of time, from said service node in a data network;
- b) comparing said user access list to an authorized access list;
- c) determining if an access to said data network service was authorized based on said comparison step b);
- d) if determined that said access was unauthorized, initiating a notification process.

14. (Previously presented) The computer-readable medium as defined in claim 13, further containing computer-readable and computer-executable instructions which perform a step of updating said authorized access list based on user access information.

15. (Previously presented) The computer-readable medium as defined in claim 13, further containing computer-readable and computer-executable

instructions which perform a step of installing said agent at said user node, prior to retrieving said user access list in step a).

16. (Previously presented) The computer-readable medium as defined in claim 13, further containing computer-readable and computer-executable instructions wherein said steps a) through c) are repeated, and wherein said user node is selected from one of a plurality of user nodes in said data network.

17. (Previously presented) The computer-readable medium as defined in claim 13, wherein said agent is a Simple Network Management Protocol agent.

18. (Previously presented) A computer for use in a data network for identifying unauthorized access to a data network service, provided at a service node in a data network, by a user node in said data network, said service node having an agent and having means for maintaining a user access list, said user access list having at least one data network address corresponding to at least one user node in said data network; said computer comprising:

means for storing an authorized access list for said service node;

a central processing unit;

data communication means for periodically polling said agent at said service node and retrieving a user access list from said agent; and

data processing means for comparing said retrieved user access list to said authorized access list and for updating said authorized access list based on the user access list retrieved from said agent.

19. (Previously presented) The data network as defined in claim 1, wherein said authorized access list is a common authorized user access list that includes a range of user nodes for comparing to said user access list to determine if said user access list is a subset of said common authorization access list.

20. (Previously presented) The data network management system of claim 1 wherein said user access list identifies a plurality of accesses to said service node.